

## BRVGS AP BIOLOGY | SUMMER READING & ASSIGNMENT

Your task for this summer assignment is to read *The Immortal Life of Henrietta Lacks* by Rebecca Skloot. The purpose of this assignment is for you to see real-life application of scientific concepts and their intersection with relevant social issues, while getting an opportunity to develop the time management, note-taking, and research skills that will help you be successful in AP Biology.

*Henrietta Lacks was a poor black tobacco farmer whose cells—taken without her knowledge in 1951—became one of the most important tools in medicine, vital for developing the polio vaccine, cloning, gene mapping, and more. Henrietta’s cells have been bought and sold by the billions, yet she remains virtually unknown, and her family can’t afford health insurance.*

*Note: this book contains graphic depictions of racism, sexism, classism, sexual violence and its effect on generations of African Americans.*

### ASSIGNMENT COMPONENTS & GRADING

#### SUMMER ASSIGNMENTS:

##### **Read and Keep a Journal (minimum of four ~200 word entries)**

While you read, I want you to get in the habit of taking notes (in this case, keeping a journal). The idea is for you to make sense of what you read, record your questions, clarify your thoughts about the material, and respond to provided guiding questions. It is NOT a summary. \*See formatting specifics below

- **Required Journal Entries**
  - Part 1: Life - at least 1 ~200 word journal entry based on provided guiding questions
  - Part 2: Death - at least 1 ~200 word journal entry based on provided guiding questions
  - Part 3: Immortality - at least 1 ~200 word journal entry based on provided guiding questions
  - Afterword - at least 1 ~200 word journal entry based on provided guiding question
- **Formatting**
  - **Your journal must be hand-written.**
  - You must include dates and page numbers for each entry. Page numbers are important for citing sources in the writing assignment later.
  - Aim for a minimum of four entries (approximately 200 words each) - they will help you write your paper later. (You are not limited to 4 entries if you want to reflect more!)
  - [Use this template for your journal entries.](#) This doc also includes guiding questions for each required journal entry.
  - **Journals are due on the first day of school.**

#### 1st WEEK OF SCHOOL:

##### **Writing Assignment**

“Can Science go too far?” Mini-Research Paper.

Directions:

1. Write a “mini” research paper on the following prompt: **“Do you think the end - i.e. the immeasurable benefit to humankind resulting from those tissue samples - justify the means in science - i.e., removing tissue from a person without their consent or**

**knowledge? Is there a point when science “goes too far” in the pursuit of knowledge? Use *The Immortal Life of Henrietta Lacks* to support your response.**

2. Your writing must be based on information from the book, *The Immortal Life of Henrietta Lacks*. Reference your journal entries!
3. The paper must be:
  - a. **written in class**
  - b. a google doc in your BRVGS account that is submitted to turnitin.com
  - c. double spaced, size 12 font, 1-inch margins
  - d. 250-500 words
4. You must have 3 separate source citations from the text.
  - a. Basic APA format for print book citation:
    - i. Full book - Author, A. A. (Year of publication). *Title of work: Capital letter also for subtitle*. Publisher Name. DOI (if available)
    - ii. Chapter in a book - Author, A. A. (Year of publication). Title of chapter. *Title of work: Capital letter also for subtitle* (pp. pages of chapter). Publisher. DOI (if available)
5. **This paper will be written during class and is due at the end of the allotted class time.**

### [Summer Assignment Rubrics](#)

Please contact your teacher with any questions and have a great summer!

Fluvanna - Craig Conner (cconner@brvgs.k12.va.us)

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**SUMMER READING | JOURNAL TEMPLATE**  
**“The Immortal Life of Henrietta Lacks”**

**Instructions:** Use this document as a template when writing your journal entries for your summer reading. Journals must be hand-written and are due on the first day of school.

*This book is organized into 3 parts. For this journal assignment you must write a minimum of 4 entries (Your 4th entry should be a reflection based on the Afterword). Each entry should be hand-written, approximately 200 words. Entries should be based on guiding questions (found on the next page) but are otherwise open-ended (not intended to be summaries). This is an opportunity to reflect on what you've read in the context of the questions/concepts listed below- what surprised you? What questions do you have? How does the information in the book relate to your life today?*

**PART ONE: “LIFE”** (pg 1-88)

**Entry #1**

Guiding Question:

Date:

Page Number(s) for reference:

Reflection:

etc.

**PART TWO: “DEATH”** (pg 89- 178)

**Entry #2**

Guiding Question:

Date:

Page Number(s) for reference:

Reflection:

etc.

**PART THREE: “IMMORTALITY”** (pg 179 -311)

**Entry #3**

Guiding Question:

Date:

Page Number(s) for reference:

Reflection:

**AFTERWORD** (pg 315-328)

**Entry #4**

Guiding Question:

Date

Page Number(s) for reference:

Reflection:

etc.

## **Guiding Questions**

Incorporate one or more of the guiding questions from each section below when writing your journal entries.

### **Part 1: “Life”**

- Bearing in mind that the two tissue samples removed from Henrietta were not removed in an attempt to treat her cancer, but rather purely for purposes of research, was it wrong for the doctor to remove the sample tissue in the first place? Was it wrong for Dr. Gey to collect those samples for the purpose of trying to grow them in controlled conditions?
- Do you think it is ok for a doctor or scientist to use samples from patients without their knowledge if those patients were receiving free medical care when the samples were collected?
- What does this book tell us about the history of science and how science has progressed since the 1950s?

### **Part 2: “Death”**

- What is your opinion on the needs of scientific research versus the ethical rights of individuals?
- How has medical science been advanced by the study of Henrietta Lacks' cells? Give specific examples from the book.
- What changes in research on human subjects resulted, directly and indirectly, from the Lacks case? Give specific examples from the book.
- Do you still own your cells once they have been taken for medical reasons?

### **Part 3: “Immortality”**

- Who do you think should have legal rights to a cell line that was developed from cells taken from a patient without consent? Is your opinion supported by the information in the book?
- What specifically caused Henrietta’s cancer? How is that relevant today?
- Have HeLa cells been affected by epigenetics (environmental pressures affecting gene expression)?
- How is the enzyme telomerase related to the immortality of the HeLa cells and cancer cells in general? Do you think we would have made this discovery without Henrietta Lacks?
- If you discovered that tissue routinely removed from your body at some point in the past went on to significantly benefit science and research, would you feel that you should somehow be compensated? What do you think is more important – a person’s personal rights over their own tissue, or contributing to science and research for the benefit of all humankind? The RAND corporation estimates that 304 million tissue samples, from 178 million people, are currently held by labs.
- Respond to the following quote - "scientists don't like to think of HeLa cells as being little bits of Henrietta because it's much easier to do science when you dissociate your materials from the people they come from"?

### **Afterword:**

- What did you learn from reading **The Immortal Life**? What surprised you the most? What disturbed you the most?

## Journal Entries (40 points)

Criteria	8-7	6-5	4-3	2-1	0
<b>Completion</b>	All four parts are completed with over 200 words per entry. Additional reflections are included.	All four parts are completed with approximately 200 words per entry.	At least three parts are fully completed with approximately 200 words each.	Two parts are completed with less than the required word count or missing parts.	Fewer than two parts are completed.
<b>Content Accuracy and Depth</b>	Journal entries thoroughly answer the guiding questions with deep insight and understanding of the text. Real-life applications are made clear.	Journal entries adequately answer most of the guiding questions with good understanding of the text. Few real-life applications are mentioned.	Journal entries answer the guiding questions with basic understanding of the text. Some misconceptions may be evident.	Journal entries superficially answer the guiding questions. Lack of understanding or many misconceptions about the text.	Journal entries are off-topic or do not address the guiding questions.
<b>Reflection and Personal Connection</b>	Reflections demonstrate a high level of personal connection, thoughtfulness, and introspection. Clear connections are made between the text and personal experience or societal issues.	Reflections show a good level of personal connection and thoughtfulness. Some connections are made between the text and personal or societal issues.	Reflections show some personal connection and thoughtfulness but are somewhat superficial or limited in scope.	Reflections lack depth or meaningful personal connection. Few if any connections are made between the text and personal or societal issues.	Little to no reflection or personal connection is evident in the journal entries.
<b>Organization and Format</b>	Journal is exceptionally well-organized, with all entries clearly dated and paginated. Handwriting is legible. The format exceeds expectations for clarity and presentation.	Journal is well-organized with clear dates and page numbers. Handwriting is mostly legible. Meets format expectations with minor areas for improvement in presentation.	Journal is organized with dates and page numbers on most entries. Handwriting may be hard to read in places. Meets basic formatting requirements.	Journal has some organization, but dates or page numbers may be missing on several entries. Significant issues with legibility or adherence to format.	Journal lacks organization, with many entries missing dates or page numbers. Handwriting is illegible and does not meet formatting requirements.
<b>Use of Evidence</b>	Evidence from the text is skillfully incorporated into journal entries. Citations are used correctly and effectively to support reflections. Sufficient variety of sources is used.	Good use of evidence is seen throughout the journal. Citations are present and mostly used appropriately. A variety of sources is evident.	Evidence from the text is used, but integration into reflections could be smoother. Some errors in citations. Adequate variety of sources used.	Minimal use of evidence from the text. Many errors in citations or a lack of variety in sources.	Little to no use of evidence from the text. Citations are incorrect or absent.

## Writing Assignment (60 pts)

Criteria	10-8	7-5	4-2	0
<b>Engagement with The Immortal Life of Henrietta Lacks</b>	Accurately references many specific events, people, and ethical dilemmas from the book with integrated citations to support response.	Accurately references several events, people, and dilemmas from the book with proper citations.	References are vague to events, people, and dilemmas from the book, few to no citations.	No references or citations from the book.
<b>Analysis</b>	Demonstrates comprehensive understanding of the ethical dilemma and articulates complex ideas about the responsibility in medical science, evaluates ethical implications thoroughly. Considers historical context accurately.	Shows understanding of the ethical dilemma and articulates ideas about responsibility in medical science, evaluates ethical implications.	Shows minimal understanding of the ethical dilemma. Struggles to articulate responsibility in medical science and consider ethical implications.	Fails to address the ethical dilemma.
<b>Reasoning</b>	Presents a very well-organized and logical response with comprehensive evidence from the text.	Presents a mostly organized and logical response with good evidence from the text.	Response lacks clear organization or logic, with little evidence from the text.	No organization or logical reasoning, no evidence from the text.
<b>Originality and Quality</b>	Demonstrates high originality, critical thinking, and thorough understanding of the text.	Shows some originality, critical thinking, and understanding of the text.	Minimal originality, lacks critical thinking, superficial understanding of the text.	No originality, critical thinking, or understanding of the text.
<b>Mechanics + Submission</b>	Paper submitted as a BRVGS google doc to turnitin.com Meets formatting requirements (double spaced, 12pt font, 1-inch margins) No major grammar, spelling, or punctuation errors. Meets specified word count (250-500 words)	1 or more requirements not met OR turned in late	Meets few submission requirements, with significant errors.	Does not meet submission requirements.
<b>Citations</b>	Incorporates 3 or more accurate source citations from the book with correct page numbers/chapters.	Incorporates 2-3 source citations from the book with minor inaccuracies in page numbers/chapters.	Incorporates 1 source citation from the book, inaccuracies in page numbers/chapters.	No citations from the book are provided.